No. 8800013

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Plant Genetics, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY, AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

ALFALFA

'Sutter'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D. C. *this* 29th *day of* July *in the year of our Lord one thousand nine hundred and* eighty-eight.

Attest:

Kenneth R. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture

APPROVAL EXPIRES 2-28-88

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
Plant Genetics, Inc.	83C63/84C69	Sutter

4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)	5. PHONE (Include area code)	FOR OFFICIAL USE ONLY
1930 5th St. Davis, CA 95616	(916) 753-1400	PVPO NUMBER 8800013

6. GENUS AND SPECIES NAME	7. FAMILY NAME (Botanical)	FILING
Medicago sativa L.	Leguminoseae	DATE: October 30, 1987 TIME: 11:00 ☑ A.M. ☐ P.M.

8. KIND NAME	9. DATE OF DETERMINATION	FEES RECEIVED
Alfalfa	Foundation, Fall '83 Commericial	AMOUNT FOR FILING: $1800.00 DATE: October 30, 1987 AMOUNT FOR CERTIFICATE: $200.00 DATE: June 30, 1988

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION	12. DATE OF INCORPORATION
California	January 1981

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

~~Keith Walker, Mary Johnshoy~~
~~Plant Genetics, Inc.~~
~~1930 5th St., Davis, CA 95616~~

Mr. James C. Weseman
LIMBACH, LIMBACH & SUTTON
2001 Ferry Bldg. 94111
San Francisco, CA PHONE (Include area code): ~~(916) 753-1400~~ 415 433 4150

AB, 7-27-88

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. ☐ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)* ☐ Yes *(If "Yes," answer items 16 and 17 below)* ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ Yes ☐ No	☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ Yes *(If "Yes," give date)*
☒ No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

☒ Yes *(If "Yes," give names of countries and dates)*

November 15, 1986 - California USA

☐ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT	DATE
Keith Walker	10/15/87
SIGNATURE OF APPLICANT	DATE

FORM LS-470 (3-86) *Edition of 7-84 obsolete*

Exhibit 14A: **Origin and Breeding History of Sutter**

Sutter is an intermediate dormant alfalfa cultivar developed from mass selecting plants from 3-4 years-old fields of the Northern San Joaquin and Sacramento Valleys. The fields had been severely thinned and were reportedly planted with Amador, AS49R, DK167, P.581, and WL318 of which 12, 3, 2, 6, and 42 clones were utilized respectively. Reselection for good agronomic characteristics and lack of foliage diseases in greenhouses in Sacramento and Woodland, CA reduced the population from 151 to 65. Approximately three cuttings of each clone were planted in a screened isolation cage (83C63) and pollinated with leafcutter and honey bees to produce breeder (syn 1) seeds. The plants were dug and transplanted in 1984 to produce 84C69. The breeder seed produced in 1983 and 1984 was not bulked.

The dormancy characteristic is uniform and stable through the 2nd generation commensurate with other commercial alfalfa cultivars, based on observation of eight trials and 30 accumulated test years of yield data.

The pest resistance characteristics are uniform and stable through the 2nd generation commensurate with other commercial alfalfa cultivars, based on observation of 32 trials.

Syn 3 (3rd generation) has revealed no variants from the previous generation, based on field observations.

Substituted Date: 5/26/88, AB

Exhibit 14 B: Novelty Statement

Sutter is most similar to WL318, but differs in dormancy as follows:

Test Location	Date Last Cut	Date Scored	Sutter	WL318	.05 LSD
84 Davis, CA	10/29/85	11/11/85	15.3	11.6	2.4
	11/11/86	1/5/87	4.1	2.2	0.9
84 Nampa, ID	9/4/84	9/19/84	8.3	5.3	0.8
	9/4/85	10/18/85	9.4	3.9	0.6
85 Woodland	10/28/85	12/12/85	7.5	3.9	0.8
	10/13/86	11/3/86	14.0	8.8	1.2

Sutter is most similar to Amador and WL318, but differs in the following pest resistances:

	Sutter	Amador[(a)]	WL318[(a)]
Bacterial Wilt	R	–	R
Anthracnose	S	–	MR
Fusarium Wilt	HR	R	MR
Phytophthora Root Rot	HR	R	MR
Stem Nematode	R	MR	LR
Pea Aphid	R	S	HR
Spotted Alfalfa Aphid	R	MR	R
Blue Alfalfa Aphid	MR	S	LR
Southern Root Knot Nematode	HR	–	–

(a) From Proceedings of the Sixteenth California Alfalfa Symposium. December 1986.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Alfalfa)

OBJECTIVE DESCRIPTION OF VARIETY
ALFALFA *(Medicago sativa* sensu Gunn et al.*)*

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Plant Genetics, Inc.	83C63/84C69	Sutter

ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*
1930 Fifth St.
Davis, CA 95616

FOR OFFICIAL USE ONLY
PVPO NUMBER
8800013

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place numbers in the boxes to designate the expressions which are characteristic of the commerical generations of the application variety. Data for quantitative plant characters should be based on a minimum of 100 plants. Include leading zeros when necessary (e.g., [0][8][9]) for quantitative data. Comparative data should be determined from varieties entered in the same trial. Plant color may be precisely designated by using any recognized color chart, e.g., The Munsell Plant Tissue Color Charts.

1. WINTERHARDINESS:

[3] CLASS.

1 = Very Non-Winterhardy (CUF 101)
2 = Non-Winterhardy (Moapa 69)
3 = Intermediately Non-Winterhardy (Mesilla)
4 = Semi-Winterhardy (Lahontan)
5 = (Du Puits)
6 = Moderately Winterhardy (Saranac)
7 = (Ranger)
8 = Winterhardy (Vernal)
9 = Extremely Winterhardy (Norseman)

TEST LOCATION: Woodland, CA

2. FALL DORMANCY:

FALL DORMANCY (DETERMINED FROM SPACED PLANTINGS)

TESTING INSTITUTION AND LOCATION	DATE OF LAST CUT	DATE REGROWTH SCORED	REGROWTH SCORE OR AVERAGE HEIGHT				LSD .05
			APPLICATION VARIETY	CHECK VARIETIES*			
				Lahontan	Moapa 69	Saranac AR	
PGI 1984, Woodland,CA	11/11/86	1/5/87	4.1	1.7	–	–	0.9
PGI 1984, Nampa, ID	9/4/84	9/19/84	8.3	6.8	–	4.3	0.8
PGI 1986, Woodland,CA	11/21/86	1/20/87	2.7	–	5.8	–	0.7

* CUF 101, Moapa 69, Mesilla, Lahontan, Du Puits, Saranac, Ranger, Vernal, or Norseman as appropriate

Specify scoring system used: Inches of Regrowth

[3] Fall Growth Habit (Determined from Fall Dormancy Trials)

1 = Erect (CUF 101)
3 = Semierect (Mesilla)
5 = Intermediate (Saranac)
7 = Semidecumbent (Vernal)
9 = Decumbent (Norseman)

3. RECOVERY AFTER FIRST SPRING CUT (In Southwest, first cut after March 21):

[2]

1 = Very Fast (CUF 101)
3 = Fast (Saranac)
5 = Intermediate (Ranger)
7 = Slow (Vernal)
9 = Very Slow (Norseman)

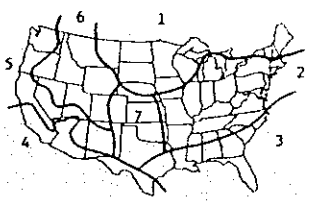
TEST LOCATION: Yolo County, CA

4. AREAS OF ADAPTATION IN U.S. (Where tested and proven adapted):

[5] Primary Area of Adaptation

[ ][ ] Other Areas of Adaptation

1 = North Central
2 = East Central
3 = Southeast
4 = Southwest
5 = Moderately Winterhardy Intermountain
6 = Winterhardy Intermountain
7 = Great Plains
8 = Other *(Specify)* _____



5. FLOWERING DATE (When 10% of plants possess open flowers at time of first spring cut):

[ ][ ] Days Earlier Than [ ]
Same As . . [ ]
[ ][ ] Days Later Than [ ]

1 = CUF 101
2 = Mesilla
3 = Saranac
4 = Vernal
5 = Norseman

TEST LOCATION: No Data

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6. PLANT COLOR (Determined from healthy regrowth 3 weeks after first spring cut, controlling leafhoppers if necessary): No comparison possible with above varieties

☐ 1 = Very Dark Green (524) 2 = Dark Green (Vernal) 3 = Light Green (Ranger)

COLOR CHART VALUE (Specify chart used) _____

APPLICATION VARIETY _____

VERNAL _____

TEST LOCATION _____

7. CROWN TYPE (Determined from spaced plantings): No Critical Data

☐ Noncreeping Types 1 = Broad (Vernal) 2 = Intermediate (Saranac) 3 = Narrow (CUF 101)

Creeping Types 4 = Creeping Rooted (Rangelander) 5 = Rhizomatous (Rhizoma)

8. FLOWER COLOR (Determine frequency of plants for each color class as defined by USDA Agricultural Handbook No. 424 (Barnes 1972), allowing all plants in plot to flower):

95 % Purple and Violet (Subclasses 1.1 to 1.4)

1 % Blue (Subclasses 2.3 and 2.4)

4 % Variegated Other Than Blue (Subclasses 2.1, 2.2, 2.5 to 2.9)

% Yellow (Subclasses 4.1 to 4.4)

% Cream (Class 3)

% White (Class 5)

TEST LOCATION Glenn County - California

9. POD SHAPE (Determine frequency of plants with the following pod shapes produced on well cross-pollinated racemes):

100 % Tightly Coiled (One or more coils, center more or less closed)

% Loosely Coiled (One or more coils, center conspicuously open)

% Sickle (Less than 1 coil)

TEST LOCATION Glenn County

10. PEST RESISTANCE: Provide in the appropriate column, trial data for application variety, and resistant (R) and susceptible (S) check varieties, synthetic generation tested, average severity index scores (ASI), least significant difference statistics (LSD .05), the institution in charge of test, year, and location of test, and whether test is a field or laboratory evaluation. Describe scoring system, and any test procedure which differs from standard methods proposed by Elgin (1982). Trial data from other test years or locations should be presented whenever available on a separate document as Exhibit D.
Seeds of the check varieties and germplasm lines listed below can be obtained from the USDA Field Crops Laboratory, Bldg. 001, Rm. 335, BARC-West, Beltsville, MD 20705. Although comparisons with check varieties listed below are preferred, comparisons with any appropriate check variety recommended by Elgin (1982) may be presented.

A. DISEASE RESISTANCE:

DISEASE	VARIETY	SYN. GEN TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	% Resistance ~~ASI~~ LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Anthracnose, Race 1 (*Colletotrichum trifolii*)	Application	1	3.8	130	NA	5.8	Plant Genetics, Inc. 1984 Woodland, CA Greenhouse
	~~Arc (R)~~ Saranac AR		69.2	1095	NA		
	Saranac (S)		1.7	1236	NA		
	SCORING SYSTEM: % Survival						
Anthracnose, Race 2 (*Collectotrichum trifolii*)	Application						
	Saranac AR (R)						
No Data	Arc (S)						
	SCORING SYSTEM:						
Bacterial Wilt (*Corynebacterium insidiosum*)	Application	1	37.1	Assumed 150-225	2.26	0.41	Univesity of Minn. 1984 Rosemount, Minn. Field
	Vernal (R)		42.0	Assumed 150-225	1.99		
	Narragansett (S)		3.5	Assumed 150-225	3.28		
	SCORING SYSTEM: 0-5 0's + 1's = Resistance						
Common Leafspot (*Pseudopeziza medicaginis*)	Application						
	MSA-CW3AN3 (R)						
No Data	Ranger (S)						
	SCORING SYSTEM:						

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10. A. PEST RESISTANCE (Continued):

DISEASE	VARIETY	SYN. GEN TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Downy Mildew (*Peronospora trifoliorum*)	Application						
Isolate, if known:	Saranac (R)						
No Data	Kanza (S)						
	SCORING SYSTEM:						
Fusarium Wilt (*Fusarium oxysporum f. medicaginis*)	Application	2	66.9	Assumed 120-180	1.82	0.57	University of Minn 1986 Rosemount, MN
	Moapa 69 (R)		83.8	Assumed 120-180	1.42		
	~~Narragansett (R)~~ MnGN-1 (S)		5.6	Assumed 120-180	4.72		Field
	SCORING SYSTEM: 0-5 with % 0's + 1's = Resistance (Data adjusted by U of M)						
Phytophthora Root Rot (*Phytophthora megasperma f. medicaginis*)	Application	1	68.9	Assumed 300-450	3.76	0.61	University of Minn. 1984 St. Paul, MN
	Agate (R)		43.0	Assumed 300-450	4.28		
	Saranac (S)		1.4	Assumed 300-450	5.72		Field
	SCORING SYSTEM: 1-6 Percent 1's + 2's = Resistance (Data adjusted by U of M)						
Verticillium Wilt (*Verticillium alboatrum*)	Application	1	11.3	222	3.94	0.24	Plant Genetics, Inc 1984 Nampa, ID
	Vertus (R)		34.1	58	2.82		
	Saranac (S)		0.0	66	4.27		Greenhouse
	SCORING SYSTEM: 1-5 Percent 1's + 2's = % Resistance						
Other (*Specify*)	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						
Other (*Specify*)	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

B. INSECT RESISTANCE:

INSECT	VARIETY	SYN. GEN TESTED	PERCENT DEFOLIATION	DEFOLIATION IN PERCENT OF RESISTANT CHECK	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Alfalfa Weevil (*Hypera postica*)	Application						
	Arc (R)			100			
No Data	Saranac (S)						
	SCORING SYSTEM						

10. B. INSECT RESISTANCE (Continued):

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT SEEDLING SURVIVAL	NUMBER OF SEEDLINGS TESTED	ASI	% ~~ASI~~ ~~LSD .05~~ Resistance	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Blue Alfalfa Aphid *(Acyrthosiphon kondoi)*	Application	1	29.0	167	NA	5.4	Plant Genetics, Inc. 1985 Woodland,CA
	CUF 101 (R)		70.4	168	NA		
	~~PA-1 (S)~~ Caliverde (S)		2.5	144	NA		Greenhouse
	SCORING SYSTEM: % Seedling Survival (Data adjusted by applicant)						
Pea Aphid *(Acyrthosiphon pisum)*	Application	1	49.5	134	NA	10.8	Plant Genetics, Inc. 1984 Woodland, CA
	Kanza (R)		48.6	126	NA		
	~~Ranger (S)~~ Moapa 69 (S)		0.7	131	NA		Greenhouse
	SCORING SYSTEM: % Seedling Survival						
Spotted Alfalfa Aphid *(Therioaphis maculata)*	Application	1	51.4	154	NA	11.7	Plant Genetics, Inc. 1983 Woodland,CA
Biotype, if known:	~~Kanza (R)~~ Baker (R)		72.9	159	NA		
	~~Ranger (S)~~ Caliverde (S)		0.2	529	NA		Greenhouse
	SCORING SYSTEM: % Seedling Survival						

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Potato Leafhopper Yellowing *(Empoasca fabae)*	Application						
No Data	MSA-CW3An3 (R)						
	Ranger (S)						
	SCORING SYSTEM:						
Other *(Specify)*	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

C. NEMATODE RESISTANCE:

NEMATODE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Northern Root Knot *(Meloidogyne hapla)*	Application						
No Data	Nev. Syn. XX (R)						
	Lahontan (S)						
	SCORING SYSTEM						

10. C. NEMATODE RESISTANCE (Continued)

NEMATODE	VARIETY	SYN. GEN TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Southern Root Knot (*Meloidogyne incognita*)	Application	1	75.0	80	1.39	0.19	Plant Genetics, Inc. 1987
	Moapa 69 (R)		77.5	80	1.44		Davis
	Lahontan (S)		7.8	80	3.09		Laboratory
	SCORING SYSTEM 1~4, % 1's = % resistance						
Stem Nematode (*Ditylenchus dipsaci*)	Application	1	37.1	134	3.91	0.28	Plant Genetics, Inc. 1985
	Lahontan (R)		55.0	122	3.85		
	Ranger (S)		6.1	394	4.31		Woodland, CA Greenhouse
	SCORING SYSTEM % 1's + 2's = Resistance (Data adjusted by applicant)						
Other (Specify)	Application						
	(R)						
	(S)						
	SCORING SYSTEM						

11. INDICATE THE VARIETY THAT MOST CLOSELY RESEMBLES THE APPLICATION VARIETY FOR EACH OF THE FOLLOWING CHARACTERS:

CHARACTER	VARIETY	CHARACTER	VARIETY
Winterhardiness	Mesilla	Plant Color	No Critical Data
Recovery After 1st Cut	Mesilla	Crown Type	No Critical Data
Area of Adaptation	Lahonton	Combined Disease Resistance	WL318
Flowering Date	No Critical Data	Combined Insect Resistance	WL318

REFERENCES

Barnes, D.K. 1972. A System for Visually Classifying Alfalfa Flower Color. U.S. Dep. Agric. Handb. 424. 18 pp. (Note: Greenish cast of plate 6, A and B is an artifact of printing, actual colors a blend of yellow and white.)

Elgin, J.H., Jr., (ed.) 1982. Standard Tests to Characterize Pest Resistance in Alfalfa Cultivars. U.S. Dep. Agric. Tech. Bull. (In Press).

Gunn, C.R., W.H. Skrdla, and H.C. Spencer. 1978. Classification of Medicago sativa L. using legume characters and flower colors. U.S. Dep. Agric. Tech. Bull. 1574. 84 pp.

Munsell Color Co. 1977. Munsell Plant Tissue Color Charts. Munsell Color Co., Inc. Baltimore.

NOTE: Any additional descriptive information and supporting documentation may be provided as Exhibit D.

Exhibit 14E: Basis of Applicant's Ownership

Plant Genetics, Inc. is the assignee of the entire right, title and interest in the alfalfa variety Sutter. The principle breeder, Ike Kawaguchi, was employed by Plant Genetics, Inc. and under an obligation to assign all rights to alfalfa varieties developed during the term of his employment.